City of Hopewell
300 North Main Street
Hopewell, VA 23860

November 4, 2010

Submitted Online (www.regulations.gov)
EPA Water Docket ID No. EPA-R03-OW-2010-0736,
Environmental Protection Agency
Mailcode: 28221T
1200 Pennsylvania Ave., NW
Washington, DC 20460

Re: City of Hopewell, Virginia Comments -EPA Water Docket ID No. EPA-R03-OW-2010-0736, Draft Total Maximum Daily Load ("TMDL") for the Chesapeake Bay

To Whom It May Concern:

Thank you for the opportunity to comment on EPA's Draft TMDL for the Chesapeake Bay and Virginia's WIP.

Background: The Hopewell Regional Wastewater Treatment Facility (HRWTF) is a 50 MGD POTW that discharges to Gravelly Run a tributary of the James River. Our mission is to treat the combined industrial and domestic wastewater of the Hopewell area while meeting or exceeding all environmental standards. The City of Hopewell is bordered by two rivers and recognizes the importance that clean water and the environment have on the economy and well being of the community.

Although the population of Hopewell is only 23,000, HRWTF is quite unique as it is sized to serve a City the size of the City of Richmond due to our large industrial base. Currently, HRWTF treats approximately 80% industrial waste from 5 major industries: Honeywell – Hopewell Plant, Ashland/Hercules, Smurfit Stone Container Company, and Evonik Goldschmidt Chemical Company, as well as water residuals wastewater from the Virginia American Water Company. It also treats the domestic waste for the City of Hopewell, portions of Prince George County, Fort Lee Military Base, Petersburg Federal Correctional Complex, and Southside Regional Jail.

The concept of an industrial/domestic POTW was fully supported and endorsed by USEPA in the 1970's as an effective means of providing centralized treatment to the Hopewell region, and as such the City was the recipient of EPA and State construction grants in the amount of $40 million. The proposed TMDL allocation for HRWTF would negate this long term successful investment by forcing our industrial base to either close down or install immensely expensive on-site treatment that would place them in a very disadvantaged position in a competitive business climate.

HRWTF Supports Virginia's WIP: The Commonwealth of Virginia's Watershed Implementation Plan provides a reasonable and cost effective approach to meeting the goals of the Chesapeake Bay and in particular the James River. It provides sustainability and stability for communities like Hopewell though its systemic approach and development of expanded trading programs. EPA's TMDL is not required to consider cost in development of its TMDL, however, before the TMDL can be achieved, costs must be considered in the implementation process. HRWTF believes that Virginia's WIP provides that cost consideration and EPA has no right to disapprove this plan.

James River TMDL is Virginia's Responsibility: For years, we have understood that the James River has very little impact on the main stem and the dead zone of the Chesapeake Bay. However, EPA has proposed drastic cuts to James allocations on the basis of chlorophyll standards violations. Achievements of these proposed backstop allocations will not improve the Bay water quality.

In addition, as EPA is aware, the chlorophyll standard lacks a sound scientific foundation. Virginia's WIP proposes a systemic study to address this and determine a scientifically sound method for eutrophic measurement. Since this is a state standard, it is Virginia's responsibility to enforce the standard and to develop a method for standard achievement. Since the James River chlorophyll standard was adopted in 2005, we do not believe this is part of EPA's responsibility under its TMDL Consent Decrees with the American Canoe Association and Kingman Park Civic Association and therefore, should not be part of this TMDL. Hence, Virginia's WIP approach is a responsible approach toward developing an appropriate standard while maintaining progress in meeting the Chesapeake Bay goals in 2017 and 2025.

Proposed Backstop Allocations are Unfair Particularly in the James River Basin: The proposed backstop allocations for POTW dischargers are included in the draft Chesapeake Bay TMDL because EPA does not believe Virginia's WIP provides "reasonable assurance" that non-point discharges will meet allocations. In the James River Basin, only 17% of the agriculture nitrogen controls have been met. Yet, EPA has proposed what it has termed "moderate" reductions to Virginia's WIP POTW allocations to achieve the nutrient compliance goals rather than expecting a high level of effort from the agricultural sector. EPA should allocate point and nonpoint sources in an equitable manner.

It is our understanding that EPA is considering these potential cuts under a new EPA guidance letter on "reasonable assurance". We question whether EPA's unpromulgated "reasonable assurance" guidance is even legal because the regulation on which the guidance is based has never been put into effect.

EPA's backstop allocations proposal takes a "one-size-fits-all" approach to POTWs and is requiring POTWs in the James River Basin to achieve nitrogen and phosphorus reductions of 4 mg/l and 0.3 mg/l respectively. This approach does not take into account any unique characteristics of POTWs such as HRWTF with its industrial wastewater base. EPA and Virginia DEQ have previously recognized this uniqueness by basing HRWTF's effluent limits on a flow weighted average of industrial effluent guidelines for the pulp and paper and organic chemical, plastics, and synthetic fibers industries along with domestic secondary treatment standards. By using this "one-size-fits-all" POTW approach, EPA is proposing to cut HRWTF's nitrogen allocation by 66% or 1.2 million lbs/year and our phosphorus allocation by 39% or 30, 000 lbs/year. These drastic cuts are likely not achievable with current technology and clearly are not sustainable to our community..

Because of higher than normal influent temperatures and wastewater that is inhibitory to traditional nitrification, HRWTF has for two decades studied nitrogen removal technologies and determined that the limit of technology for HRWTF was 8 mg/l vs. 3mg/l for conventional POTWs. In addition, during the James River Tributary Strategy process, Virginia DEQ acknowledged that BNR equivalency for HRWTF was 12 mg/l compared to 5 mg/l for most POTWs. Based on the knowledge that we have of our wastewater, we are certain that HRWTF cannot reasonably achieve the proposed backstop allocations.

Moreover, our influent wastewater is phosphorus deficient, which requires the addition of phosphorus at a cost of $70,000 a year in order for biological treatment to occur. Exact amounts of phosphorus needed for biological activity is difficult to control with current technology, however, our effluent phosphorus averages 0.7 mg/l annually. Reducing HRWTF's phosphorus allocation by 39% will require the installation of phosphorus removal technology to a facility that ADDS phorphorus to consistently meet a 0.3 mg/l limitation.

Imposing the proposed backstop allocations on POTWs like HRWTF, places an unfair disadvantage on the Hopewell industries. Other industries that are direct discharges into the James River are not faced with large reductions in their nutrient allocations. By virtue of discharging into the regional treatment system, which, as previously mentioned, was endorsed by EPA, the Hopewell industries will have to pay their share of the costs which will be substantial for HRWTF to meet these backstop allocations. We do not believe our industries can sustain large increases in sewer charges and may choose to close or move where it is more economically stable. In fact, one of the Hopewell industries just emerged from bankruptcy in 2010.

Proposed Backstop Allocations Affect Regulatory Stability and Planning:
In January 2007, almost 4 years ago, Virginia issued its Nutrient General Permit and established the Nutrient Credit Exchange Association, which set the allocations and trading rules for point source discharges into Virginia's Bay tributaries. Compliance plans were developed and approved. Treatment plants designed and built. Virginia's point source allocation achieved. Now, under the proposed TMDL and proposed backstop allocations, it appears that "no good deed goes unpunished'. The regulatory stability that Virginia dischargers thought was evident in the general permit and trading agreements will be erased by EPA if the current draft of the TMDL goes into effect.

Since 1985, three major nitrogen reduction projects were implemented in Hopewell at a cost of $25 million. These project reduced nitrogen in our effluent by 69%. Even with that investment and that much reduction, we are still marginally meeting our current nitrogen allocation. We are currently implementing the first phase of a two phase plan toward additional nitrogen removal. The first phase, at a cost of $30 million is currently under construction. The second phase was in the preliminary stages of preliminary engineering. However, since the introduction of the draft TMDL, and the uncertainty of final limitations, phase two of the project has been postponed. We doubt that HRWTF is the only facility that is taking this approach. We believe EPA's proposed TMDL may actually delay Bay clean-up by creating an environment of regulatory uncertainty and setting the stage for future litigation.

Disapproval of Virginia's WIP and Proposed Backstop Allocations Affect Trading: Virginia's WIP proposed the expansion of the nutrient trading program to include point and non-point trading scenarios. This would greatly enhance opportunities to creatively meet the Bay tributary allocations in as quick and cost effective manner as possible. However, disapproval of Virginia's WIP discourages the State from developing the legislation and regulation necessary to make this happen.

Imposition of the proposed backstop allocations are an impediment to trading by reducing POTW allocations available for trading. POTWs can no longer exceed limitations and credits to sell when they are being forced to treat to the limit of technology.

The second phase of HRWTF's two phase plan, which is estimated to cost $35 million would reduce total nitrogen by 3 mg/l and would still require the purchase of nitrogen credits to meet the current nitrogen allocation. If the current draft of the TMDL is adopted, there will be little if any credits available and certainly not enough credits to meet HRWTF's needs at the proposed backstop allocation.

Proposed Point Source Backstop Allocation for Sediment is Unnecessary: TSS from point sources is a de minimis load of less than 1%. In EPA's public meetings on the TMDL, one of the slides showed that Virginia's WIP met the sediment allocation. If this is the case, then why are sediment backstop allocations necessary? We believe EPA is being arbitrary in placing this requirement in the draft TMDL. If this requirement remains in the final TMDL, it will require POTWs to install filters to meet a 5 mg/l TSS limit, which will provide no benefit to water quality and will only add unnecessary costs to an already onerous regulation.

Proposed Backstop Allocations Direct Affect on HRWTF and the City of Hopewell: The cost of meeting 8 mg/l (LOT for HRWTF) is estimated in 2010 dollars to be $73 million. If we have to add filters to meet TSS and phosphorus allocations, it is estimated that the cost could be as much as $91 million. The City of Hopewell is a small city with a poverty rate of 18.3% and an unemployment rate of 10.3%; 14 highest in the Commonwealth of Virginia. To fund our $30 million wastewater project currently under construction, the sewer rate in the City of Hopewell was increased by 69% in July of 2009. If we had to raise our sewer rates by 69% to fund a $30 million project, how much of an increase will it take to fund a $73 or $91 million project?

In spite of the enormous capital costs, the bigger issue is the annual operation and maintenance costs. Very often partial grant funding is available to help offset the capital cost; however, there is no grant funding available to offset the yearly O&M costs. Our current O&M costs are $9 million. If we are forced to meet the proposed backstop allocations in the TMDL, the estimated increase in O&M costs is $5 to $6 million/year. We do not believe that this much of an increase will be sustainable for the City or for the Hopewell industries or citizens.

Additional Comments: HRWTF is continually looking for more cost effective means of reducing our nitrogen load on the James River. In 2009 we began a study using ARRA funding provided through EPA and Virginia DEQ to determine if algae biomass could be used to remove nitrogen from our wastewater. A final report on the results of the first year of the study is expected in the next few weeks. We will continue this study for at least another year and possibly more in the hopes that we will learn more and find a new technology that can meet our needs and the needs of the James River in an economical and cost effective manner. We are dedicated to improving the environment, but also have a fiduciary responsibility to our citizens and to the industries that we serve to make our compliance decisions based on sound science.

We believe the Draft TMDL is fundamentally and materially flawed as a technical matter, especially with regards to the James River components. Serious chlorophyll standard and computer modeling deficiencies are thoroughly documented in the comments of the Virginia Association of Municipal Wastewater Agencies, Inc. ("VAMWA") of which we are a member. We request that EPA fully consider and address all of VAMWA's comments, which we generally support and hereby incorporate by reference as if fully set forth herein.

If you have any questions or require any further information regarding our comments, please contact Mark Haley or Jeanie Grandstaff at 804-541-2210.

Sincerely,

Edwin C. Daley

Edwin C. Daley
City Manager

cc: Hopewell City Council
HRWTF Commission
Virginia Association of Municipal Wastewater Agencies
Virginia Department of Environmental Quality

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